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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/797,732	03/10/2004	Ramiro Quintero Illera	153454600016	3413

7590 06/03/2005

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EXAMINER

LE, HOANGANH T

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No. 10/797,732	Applicant(s) QUINTERO ILLERA ET AL.	
	Examiner HoangAnh T. Le	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-39 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Hoanganh Le
Primary Examiner

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
2. The preliminary amendment filed on October 07, 2004 is acknowledged.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1,2,3,5,9-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Kikuchi et al (the US Patent No. 6,717,494).

The Kikuchi et al reference teaches in figure 14 a ground-plane 51 for an antenna device characterized in that the ground-plane includes at least two conducting surfaces, the two conducting surfaces being connected by at least a one conducting strip which allows current to flow from one conducting surface to another, the strip being narrower than the width of any of the two conducting surface (figure 14 and col. 13, lines 30-40). The conducting surfaces are on a common planar or curved surface (figure 14). Two edges of at least two conducting surfaces are placed substantially parallel to

each other, and the at least one conducting strip connecting the two conducting surfaces is placed substantially centered with respect to the gap defined by the two substantially parallel edges (figure 14). The the ground-plane comprises a plurality of conducting surfaces on the same planar or curved surface, wherein at least two of the conducting surfaces are connected by a conducting strip figure 14). Each two adjacent conducting surfaces are connected by at least a one conducting strip. All the conducting surfaces defining the round-plane have a substantially rectangular shape, the rectangular shapes being sequentially aligned along a straight axis, each pair of rectangular shapes defining a gap between them, at least two opposite edges of at least one of the gaps being connected by at least one conducting strip (figure 14). All the conducting surfaces defining the ground-plane have the same horizontal width and are sequentially aligned along a straight vertical axis, wherein each pair of adjacent conducting surfaces define a gap between them, wherein each pair of adjacent conducting surfaces are connected across the gap by a conducting strip, the strip being aligned along an edge of the external perimeter of the ground-plane, the edge being alternatively and sequentially chosen at the light and left sides with respect to a vertical axis crossing the center of the ground-plane (figure 14).

5. Claims 1-39 are rejected under 35 U.S.C. 102(b) as being anticipated by Cohen (the US Patent No. 6,140,975).

The Cohen reference teaches in figure 8B a ground-plane 510D for an antenna device characterized in that the ground-plane includes at least two conducting surfaces, the two conducting surfaces being connected by at least a one conducting strip which

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allows current to flow from one conducting surface to another, the strip being narrower than the width of any of the two conducting surface (col. 15, lines 20-23). The conducting surfaces are on a common planar or curved surface (figure 8B). Two edges of at least two conducting surfaces are placed substantially parallel to each other, and the at least one conducting strip connecting the two conducting surfaces is placed substantially centered with respect to the gap defined by the two substantially parallel edges (figure 8c). The the ground-plane comprises a plurality of conducting surfaces on the same planar or curved surface, wherein at least two of the conducting surfaces are connected by a conducting strip (figure 8c). Each two adjacent conducting surfaces are connected by at least a one conducting strip. All the conducting surfaces defining the round-plane have a substantially rectangular shape, the rectangular shapes being sequentially aligned along a straight axis, each pair of rectangular shapes defining a gap between them, at least two opposite edges of at least one of the gaps being connected by at least one conducting strip (figure 8B). All the conducting surfaces defining the ground-plane have the same horizontal width and are sequentially aligned along a straight vertical axis, wherein each pair of adjacent conducting surfaces define a gap between them, wherein each pair of adjacent conducting surfaces are connected across the gap by a conducting strip, the strip being aligned along an edge of the external perimeter of the ground-plane, the edge being alternatively and sequentially chosen at the light and left sides with respect to a vertical axis crossing the center of the ground-plane (figure 8B). The ground plane comprises at least three conducting surfaces, in which one pair of any of two adjacent conducting surfaces are connected by

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means of at least one conducting strip, and the rest remaining pairs of adjacent conducting surfaces are electromagnetically connected by means of a capacitive effect by direct contact provided by the at least one conducting strips (figure 8B). The antenna device includes at least two conducting strips, both strips connecting at least two of the conducting surfaces at least at two points located at both edges of the conducting surfaces (figure 8B). At least one of the strips is aligned along one of the edges defining an external perimeter of the ground-plane. The ground-plane comprising a plurality of conducting surfaces on the same planar or curved surface, wherein at least two of the conducting surfaces are connected by a conducting strip (figure 8B). At least one of the strips connecting two of the conducting surfaces is shaped as a zigzag or meandering curve. At least one of the conducting surfaces is shaped as a space filling curve (SFC) (figure 8B). The antenna device includes a monopole antenna (figure 7D). The antenna device is included in a cellular telephone, a cordless telephone, a personal digital assistant (PDA), a wireless paging device, an electronic game device or a remote control (figure 8B). The ground-plane is included in a handheld wireless device and wherein the antenna device includes a microstrip patch antenna configuration or a planar inverted-F (PIFA) antenna configuration (figure 8B).

6 Any inquiry concerning this communication or earlier communications from the examiner should be directed to HoangAnh T. Le whose telephone number is (571) 272-1823. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'Hoanganh Le', with a long, sweeping horizontal line extending to the left.

Hoanganh Le
Primary Examiner